

**Abstract:**

A design/compile-time, and runtime software development system that allows developers of varying levels of expertise to build enterprise applications with dynamic user interfaces. The system allows for building dynamic web pages which connect to data sources on the back-end, and which may be integrated into a portal on the front end. In one embodiment the system comprises an IDE having a design-time environment that allows the design of a portal application, said design-time environment including a Java Server Page design editor component, and a webflow design editor component; a run-time environment for execution on a server and that runs said portal application, said run-time environment including a control container and lifecycle driver component, a control factory component, and an application flow and state management component; wherein the system can be switched from the design-time environment to the run-time environment, to automatically effectuate changes from one environment to the other.